

Mineral Industry Surveys

For information, contact: Thomas S. Jones, Silicon Commodity Specialist U.S. Geological Survey 989 National Center Reston, VA 20192

Telephone: (703) 648-4973, Fax: (703) 648-7757

E-mail: tjones@usgs.gov

Kevin J. Bacon (Data) Telephone: (703) 648-7957

MINES FaxBack: (703) 648-4999

Internet: http://minerals.er.usgs.gov/minerals

SILICON IN FEBRUARY 1998

In **February**, domestic shipments and overall production of silicon ferroalloys plus metal, excluding silvery pig iron, showed the effect of the short month and decreased about 19% and 6%, respectively, compared with those in the prior month, according to the U.S. Geological Survey. For the month, the daily rate for shipments declined about 10% to a level typical of that for the past year. The daily rate for overall production increased about 4% to the peak previously reached in December 1997.

January trade data are included in this report. Trade data for February were unavailable at the time of publication and will be included in a subsequent report.

Published prices for silicon-based commodities are listed below (Source: Platt's Metals Week). Ferrosilicon prices are based on the contained weight of silicon. All prices are posted in cents per pound.

Dealer Import Prices

	50% Ferrosilicon	75% Ferrosilicon	Silicon Metal
February 6	51.0-54.0	44.0-46.0	64.0-76.0
February 13	51.0-54.0	44.0-46.0	64.0-76.0
February 20	51.0-54.0	44.0-46.0	66.0-76.0
February 27	51.0-54.0	44.0-46.0	66.0-76.0

TABLE 1 U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL 1/2/2

(Metric tons)

	Gross pro	duction 3/	Net shi	Stocks,	
	February	Year to	February	Year to	February
Material	1998 date		1998	date	1998
Silvery pig iron:					
Less than 25% silicon	W	W	W	W	W
Ferrosilicon:					
25%-55% silicon	15,100	26,200	8,650	17,600	19,000
56%-95% silicon	11,400	25,400	12,000	25,900	22,100
Silicon metal:					
Excludes semiconductor grades	15,300	33,100	15,600	33,600	9,520
Miscellaneous silicon alloys:					
Exclusive of silicomanganese	8,510	19,000	7,680	15,800	13,500

W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits.

TABLE 2 U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN JANUARY 1998 $\ 1/\ 2/$

(Metric tons)

			_		Year to date	
	Gross	Contained		Gross	Contained	
Country	weight	weight	Value	weight	weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	719	431	\$485,000	719	431	\$485,000
Chile	12	7	9,250	12	7	9,250
Korea, Republic of	89	54	71,300	89	54	71,300
Mexico	329	203	312,000	329	203	312,000
Total	1,150	695	878,000	1,150	695	878,000
Other ferrosilicon:						
Australia	534	266	422,000	534	266	422,000
Canada	683	337	518,000	683	337	518,000
Chile	15	7	20,000	15	7	20,000
India	220	110	370,000	220	110	370,000
Japan	381	190	301,000	381	190	301,000
Malaysia	35	16	27,500	35	16	27,500
Mexico	252	126	232,000	252	126	232,000
Turkey	39	20	36,200	39	20	36,200
United Kingdom	860	430	629,000	860	430	629,000
Total	3,020	1,500	2,550,000	3,020	1,500	2,550,000
Total ferrosilicon	4,170	2,200	3,430,000	4,170	2,200	3,430,000
Metal:	-					
More than 99.99 % silicon:	_					
China	6	XX	\$164,000	6	XX	\$164,000
Czech Republic	4	XX	192,000	4	XX	192,000
Denmark	4	XX	339,000	4	XX	339,000
Finland	4	XX	185,000	4	XX	185,000
France	- 4	XX	428,000	4	XX	428,000
Germany	10	XX	690,000	10	XX	690,000
Japan	344	XX	19,500,000	344	XX	19,500,000
Korea, Republic of	- 32	XX	1,640,000	32	XX	1,640,000
Malaysia	- 11	XX	3,100,000	11	XX	3,100,000
United Kingdom	- 6	XX	759,000	6	XX	759,000
Other (18 countries)	9	XX	728,000	9	XX	728,000
Total	435	435 e/	27,700,000	435	435 e/	27,700,000

See footnotes at end of table.

^{2/} Includes U.S. Geological Survey estimates.

^{3/} Ferrosilicon production includes material consumed in the production of miscellaneous silicon alloys.

$TABLE \ \ 2--Continued \\ U.S. \ EXPORTS \ OF FERROSILICON \ AND \ SILICON \ METAL \ IN JANUARY \ 1998 \ \ 1/\ 2/$

(Metric tons)

			•	Year to date		
	Gross	Contained	-	Gross	Contained	
Country	weight	weight	Value	weight	weight	Value
MetalContinued:						
99.00% - 99.99% silicon:	_					
Brazil	3	3	9,780	3	3	9,780
El Salvador	- 11	11	16,000	11	11	16,000
Korea, Republic of	579	574	816,000	579	574	816,000
Mexico	10	10	14,700	10	10	14,700
Switzerland	_ 2	2	2,980	2	2	2,980
Total	606	601	860,000	606	601	860,000
Other silicon:						
Australia	- 81	79	107,000	81	79	107,000
Brazil	28	27	37,200	28	27	37,200
Canada	567	550	581,000	567	550	581,000
Dominican Republic	16	15	27,700	16	15	27,700
Germany	184	178	242,000	184	178	242,000
Israel	10	9	12,700	10	9	12,700
Japan	272	264	670,000	272	264	670,000
Mexico	188	183	284,000	188	183	284,000
Switzerland	130	127	172,000	130	127	172,000
Taiwan	196	191	259,000	196	191	259,000
Other (6 countries)	22	22	52,000	22	22	52,000
Total	1,690	1,650	2,450,000	1,690	1,650	2,450,000
Total silicon metal	2,740	2,680	31,000,000	2,740	2,680	31,000,000

e/ Estimated. XX Not applicable.

Source: Bureau of the Census.

TABLE 3 U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN JANUARY 1998 1/ 2/

(Metric tons)

				Year to date		
	Gross	Contained	-	Gross	Contained	
Country	weight	weight	Value	weight	weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
55% - 80% silicon, Other:						
Canada	292	221	\$209,000	292	221	\$209,000
Egypt	148	105	261,000	148	105	261,000
Iceland	77	58	267,000	77	58	267,000
India	770	578	492,000	770	578	492,000
Macedonia	5	4	20,700	5	4	20,700
Norway	728	535	735,000	728	535	735,000
Poland	20	15	13,600	20	15	13,600
South Africa	2,540	1,930	1,700,000	2,540	1,930	1,700,000
Total	4,580	3,450	3,700,000	4,580	3,450	3,700,000
80% - 90% silicon:						
Canada	16	13	7,790	16	13	7,790
More than 90% silicon:						
Magnesium ferrosilicon:						
Argentina	80	38	88,000	80	38	88,000
Brazil	975	444	819,000	975	444	819,000
China	24	14	102,000	24	14	102,000
Germany	8	4	35,000	8	4	35,000
Japan	17	9	36,700	17	9	36,700
Norway	160	71	163,000	160	71	163,000
Total	1,260	580	1,240,000	1,260	580	1,240,000

See footnotes at end of table.

^{1/} Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top ten countries.

^{2/} Data are rounded to three significant digits; may not add to totals shown.

TABLE 3--Continued U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN JANUARY 1998 1/2/ $\,$

(Metric tons)

			_		Year to date	
	Gross	Contained		Gross	Contained	
Country	weight	weight	Value	weight	weight	Value
FerrosiliconContinued:						
Other ferrosilicon:						
Canada	622	143	388,000	622	143	388,000
France	21	10	46,200	21	10	46,200
Total	643	153	435,000	643	153	435,000
Total ferrosilicon	6,500	4,200	5,380,000	6,500	4,200	5,380,000
Metal:						
More than 99.99% silicon:						
China	(3/)	XX	\$6,200	(3/)	XX	\$6,200
Denmark	(3/)	XX	2,520	(3/)	XX	2,520
Germany	48	XX	5,300,000	48	XX	5,300,000
Italy	21	XX	1,440,000	21	XX	1,440,000
Japan	17	XX	726,000	17	XX	726,000
Korea, Republic of	34	XX	1,160,000	34	XX	1,160,000
Russia	1	XX	130,000	1	XX	130,000
Taiwan	2	XX	91,200	2	XX	91,200
United Kingdom	3	XX	220,000	3	XX	220,000
Total	126	126 e/	9,070,000	126	126 e/	9,070,000
99.00% - 99.99% silicon:						
Australia	192	190	330,000	192	190	330,000
Brazil	281	279	355,000	281	279	355,000
Canada	539	535	901,000	539	535	901,000
China	108	107	94,400	108	107	94,400
Czech Republic	4	4	1,680	4	4	1,680
France	(3/)	(3/)	112,000	(3/)	(3/)	112,000
India	84	84	233,000	84	84	233,000
Norway 4/	69	66	1,570,000	69	66	1,570,000
South Africa	926	924	25,700	926	924	25,700
Total	2,200	2,190	3,630,000	2,200	2,190	3,630,000
Other silicon:						
Brazil	402	396	488,000	402	396	488,000
Canada	540	533	855,000	540	533	855,000
China	300	296	275,000	300	296	275,000
Japan	(3/)	(3/)	1,750	(3/)	(3/)	1,750
Malta and Gozo 4/	183	180	183,000	183	180	183,000
Russia	4,200	4,120	3,830,000	4,200	4,120	3,830,000
South Africa	144	141	189,000	144	141	189,000
United Kingdom	75	74	126,000	75	74	126,000
Total	5,840	5,740	5,950,000	5,840	5,740	5,950,000
Total silicon metal	8,170	8,050	18,600,000	8,170	8,050	18,600,000

e/ Estimated. XX Not applicable.

Source: Bureau of the Census.

^{1/} Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top ten countries. 2/ Data are rounded to three significant digits; may not add to totals shown.

^{3/} Less than 1/2 unit.

 $^{4\!/}$ All or part of these data have been referred to the Bureau of the Census for verification.